## Seed starting the easy way

By Jj Fallick (photos by Efic Large)

Have you gotten tired of spending the price of a packet of seed for only six plants? Have you ever wanted to try a new variety but found only the "old standbys" when you went shopping for transplants? If so, maybe it's time for you to begin starting your own transplants from seeds. It doesn't require costly equipment—only a few scrounged materials, a bit of potting soil and a sunny window—or extensive training. After learning a few tricks of the trade, anyone can save a bunch and have the varieties they want by growing their own seedlings.

The first consideration is timing. Even the best greenhouseman can't rush a seedling! Garden experts often say seedlings require 6-8 weeks after germination to reach transplant size. It's true that overmature seedlings suffer more transplant shock. In my experience, backyard gardeners have less than optimum growing conditions and need to allow a little extra time for their plants to reach transplant size. How do you determine when to start your seedlings? Determine your best transplant date and count back the required number of weeks from Table 1. For help in determining the best transplant date for your garden, refer to my article "It's Not Too Late to Start Your Garden" (BHM #9) or check with your county Extension Agent.

Table 1.

Squash, melons, cucumbers	4 weeks
Lettuce	6 weeks
Tomatoes	12 weeks
Peppers, leeks,	14 weeks
onions	

To make sure that you have seeds to plant on the early planting dates you'll probably have to mail order or use last years seeds. For most vegetables either option is viable. If stored in a cool, dry place, most seeds will germinate adequately the second year. My local garden store, which is usually well supplied, doesn't get new stock until after I start tomato seedlings, though. I prefer to mail-order new seeds for my early spring planting, to take advantage of new varieties. Don't forget to allow time for your order to be packed and shipped. I put in my first order right after the new year and send additional orders as needed throughout the spring.

You will also need planting medium and containers. This is where you can easily eat up your savings. You don't need fancy supplies. Some folks even mix their own potting mix from sifted compost, soil and other materials. This can be tricky, so I watch for potting soil on sale cheap throughout the year and buy it to have a ready supply. Regular potting soil is what you want; some of the custom blends are not good for veggie seedlings and they all cost more. You don't need to buy planting flats or peat pots either. I used to buy Jiffy Pots, compressed peat pellets for my squash and melons but now I make plantable pots from newspaper for those crops that don't like transplanting.

For basic flats I use cutdown cardboard boxes lined with plastic. You can use milk cartons, old pans or any container that will hold soil. Don't cut holes in the bottom of the container; it's messy and can lead to uneven soil moisture. You'll avoid soggy roots by learning proper watering techniques and one of my tricks.

If you want just a few plants, milk cartons work just fine. Be sure to rinse them in cold water immediately upon emptying and then wash with soapy water. This will help prevent fungal and other infections. To make the most of your carton, cut the spout side off lengthwise (illustration 1).

If you are growing more than just a few seedlings, you can use any

cardboard boy, cut to 3" deep, and lined with plastic. I recycle old plastic bags and weathered plastic big enough to completiely line the box and extend past the edges a couple of inches. Fill the lined box with potting soil about 2" deep, smoothed out and patted down.

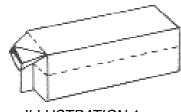
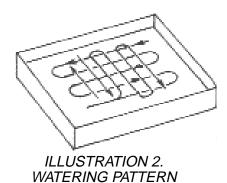


ILLUSTRATION 1. MILK CARTON MINI FLAT

Water the flat now so that you don't disturb the seeds. I water the flats with a pitcher in a crosshatch pattern (illustration 2) until the soil is damp but not soggy. To test soil moisture, grab a handful and squeeze! If you squeeze out a few drops of water it's moist. More than a few and you overdid it; less and it's too dry.



Sprinkle or place seeds in rows about 2" apart. I usually don't worry about crowding tomatoes (I thin them when I transplant the first time) but take care not to get lettuces, onions and leeks too close together. The plants you transplant directly to the garden want lots of room to grow in the flat. Seeds that you can handle individually (like peppers) you might want to plant on a 2" grid (like the bean seeds I used for illustration in photo #1). While it is possible to put different veggies in the same flat, life is easier if you group them by species so they all germinate at the same time. Cover seeds with 1/4" potting soil and pat gently.

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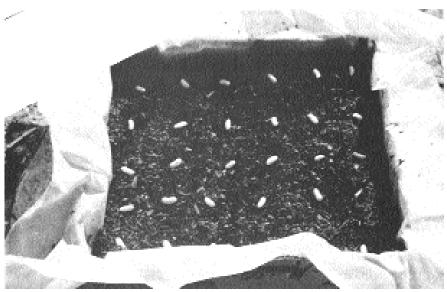
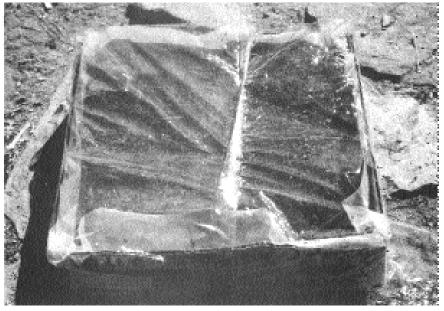


Photo 1. Bean seeds planted on a 2 inch grid.

Now comes the secret of keeping the soil moisture even! Encase the flat in a clear plastic bag or cover it with plastic wrap (photo #2). If your flat is too wide for a single piece of plastic, "drugstore fold" two pieces together to make a cover (illustration 3). You may need to trim the lining plastic and tape down the plastic cover to make your mini-greenhouse.

Your "babies" will need a warm place to begin their life. A few seeds, like lettuce, prefer germination temperatures a little on the cool side...but most like a nice room temperature. Peppers like it especially warm, so much so that my northern window sills and coolish rooms aren't good enough. I start pepper seedlings on the coolest part of my woodstove's warming shelf, moving them to the window once they are up and growing.

After germination, the seedlings need light. I've tried "grow lights" and other kinds of artificial illumination and still prefer the original light source, the sun. Any south-facing window into which the sun shines can



*Photo 2. Cover the flat with plastic.* 

make a good greenhouse window. If your window sill is narrow or you lack space to sit your flats, make a set of temporary hanging shelves. Attach two screws, hooks, eyes or even nails to the top of the window frame. Tie the middle of a length of clothesline rope to each fastener, then tie an overhand knot in each set of ropes about 10" below where you want each shelf to sit. Make sure to allow lots of room between shelves for the plants to get sunlight. It will take a bit of fiddling to get knots and shelves level. I "fine tune" the level after sliding my shelf (an old board or piece of drywall will do) between the ropes above the knots (photo 3). Place the flats on your shelves and you're all set.

Check your flats daily from the beginning but do **not** open the plastic or add water until you see lots of little green babies reaching for the sun. Then, remove the plastic and begin



ILLUSTRATION 3. "DRUGSTORE FOLD"

checking the flats twice a day. The sun shining in the window can get really hot, and the bigger they grow the more your seedlings will need to eat and drink. The soil can look drybut still have enough water in itf6r the plants. **Feel it.** You don't want them to be soggy, but you don't want them to wilt either. You will need to turn the flats regularly, also, since the sun only shines on one side. When the plants begin to reach seriously for the sun, turn the flat 180 degrees.

Commercial transplants are fed often with chemical fertilizers. Even if you don't want to use these products, your seedlings will need feeding to grow strong and sturdy, because potting soil is not fertile. Choose a product you like and use at the dilution recommended for houseplants. I use

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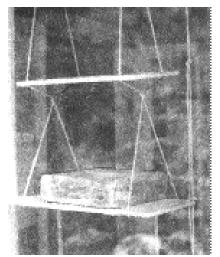


Photo 3. Temporary hanging shelves.

liquid fertilizer and replace a regular watering with the diluted plant food at least twice during the growing period.

Once they have their first real leaves, your veggies may need transplanting to a roomier flat. As a rule of thumb, if they more than just touch each other and it will be more than two weeks until they go into the garden, **transplant**. Make a flat that is a little deeper (about 4"), lift your seedlings 'gently with a fork and plant 2" apart in the new flat. The best thing you can do for tomatoes and peppers is to bury the stem completely to the level of their seed leaves. These plants grow roots from their stems and this gives them a good boost.

Melons, squash, and cucumbers need a little different handling. These plants are picky about transplanting. They don't like having their roots disturbed, so you can't just put them in a flat. For these'veggies, use individual containers like the Jiffy Pots, pint milk cartons, or my favorite — the recycled newspaper creations my kids love to make with the "potmaker" tool. Put your mini-pots in a plastic-lined flat, plant 1-3 seeds per pot and proceed as before. When you plant these veggies out in the garden don't unpot them. Plant pot and all. If you use a milk carton, carefully cut away the bottom of the carton before planting.

Don't forget to get your tender hothouse babies ready to go outdoors gradually. At least a week before transplanting day, gradually acclimatize the seedlings to the outdoors. Place them out in the morning in a protected location and bring them in at night, gradually increasing the length of time they are outdoors. When they are ready to stay out full time they are considered "hardened off" and ready for transplanting.

If you are at all like me, it will take you a few springs to get the hang of all this. Keep at it though, and eventually you will succeed. With any luck you won't end up killing off your seedlings like I did the first two years...first with an unplanned vacation (my mom took care of the plants for me; the houseplants survived but the seedlings didn't) and the next year with hospitalization. That year my husband, remembering the previous year's disaster, made sure they got plenty of water. They drowned.  $\Delta$ 



The summer road to the Backwoods Home Magazine office

## A BHM Writer's Profile



Jo Mason lives with her husband Rodney and two grown children on twelve acres outside College Station, Texas.

In addition to her articles in Backwoods Home Magazine, Jo writes for Capper's, Family Circle, Dell Logic Puzzles, Best Recipes, and Maine Organic Farmer and Gardener.

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